

FIG. 1A

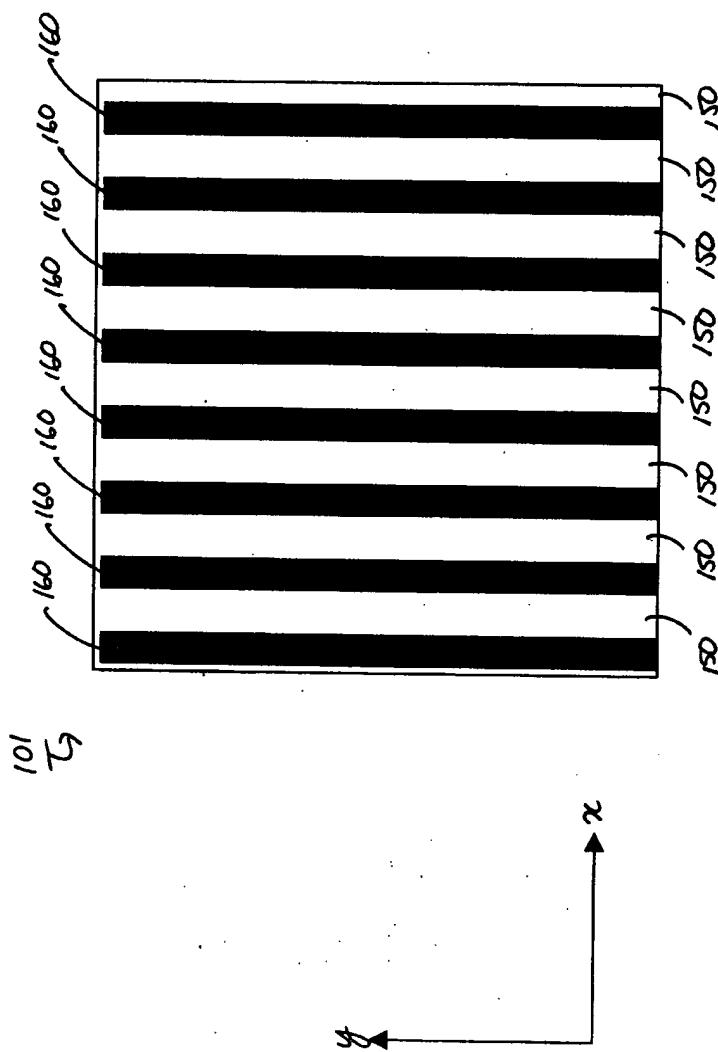
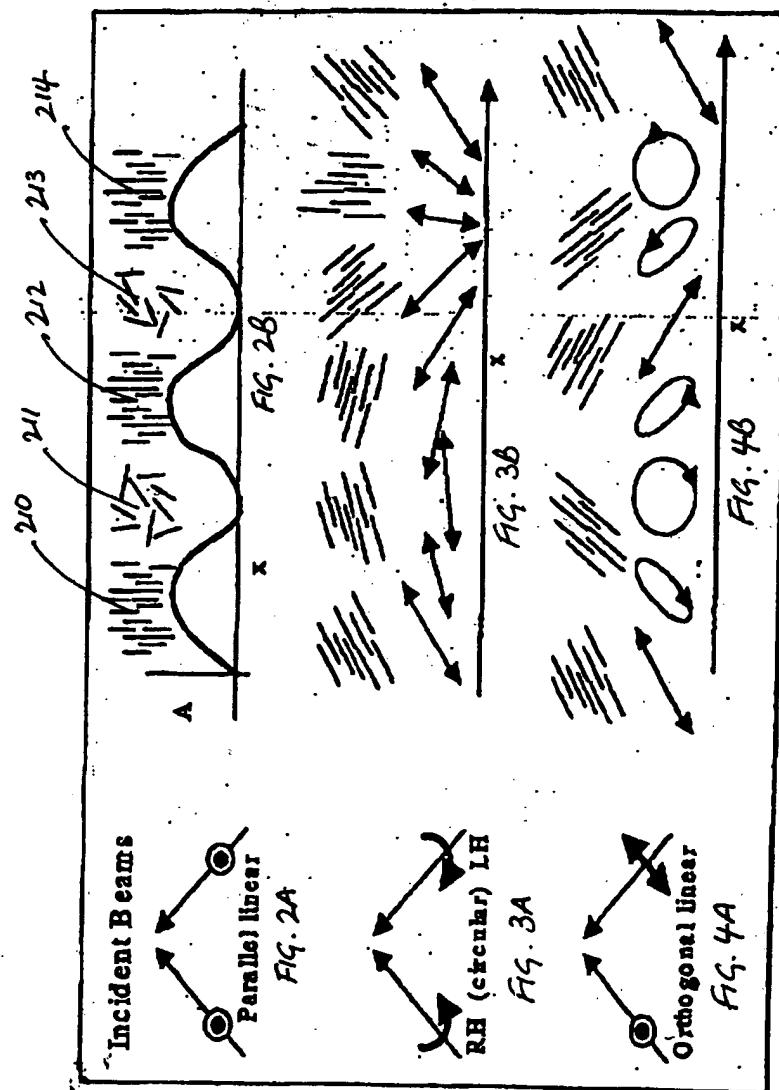


FIG. 1B



First Named Inventor: Gregory P. Crawford
Case No.: 59067US002
Title: ALIGNMENT OF LIQUID CRYSTALS

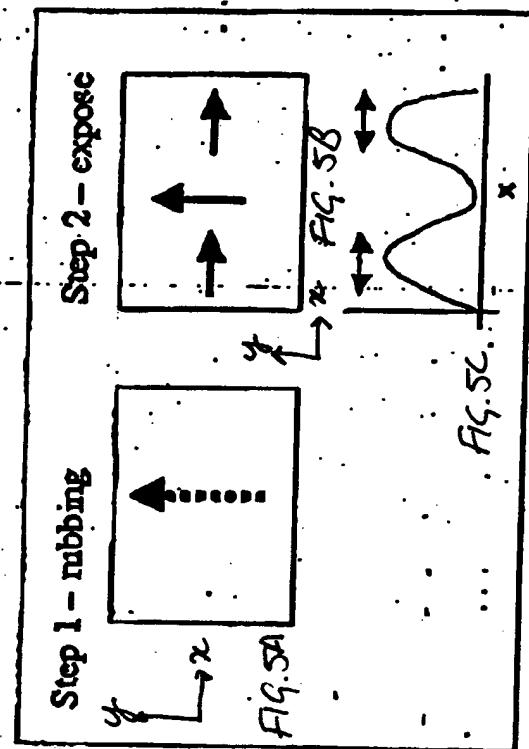


FIG: 6A

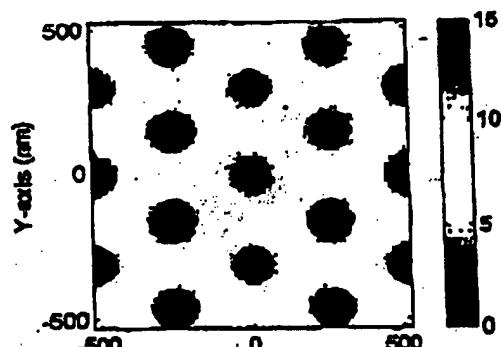
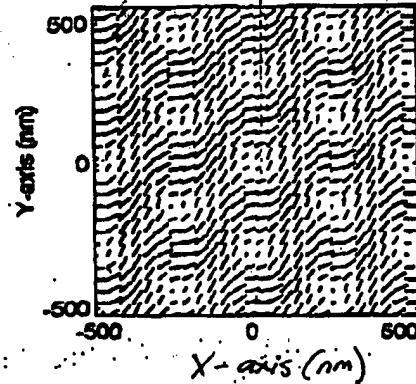


FIG: 6B



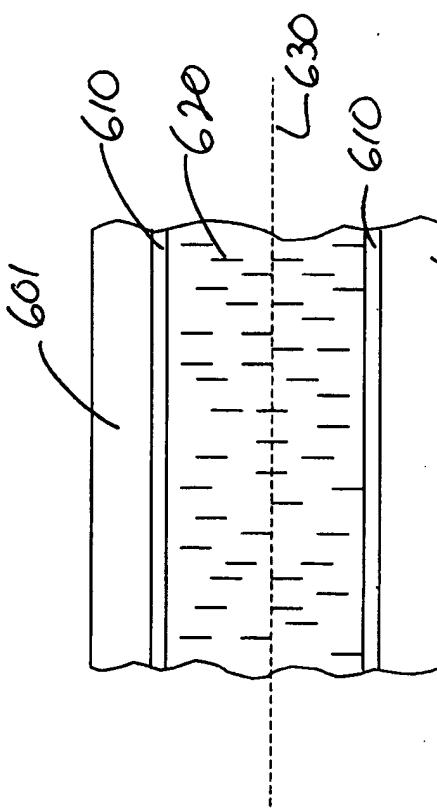


FIG. 7B

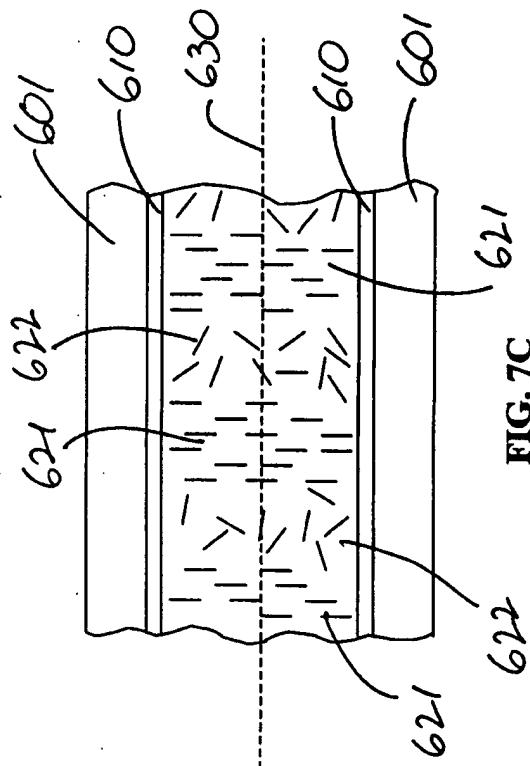


FIG. 7C

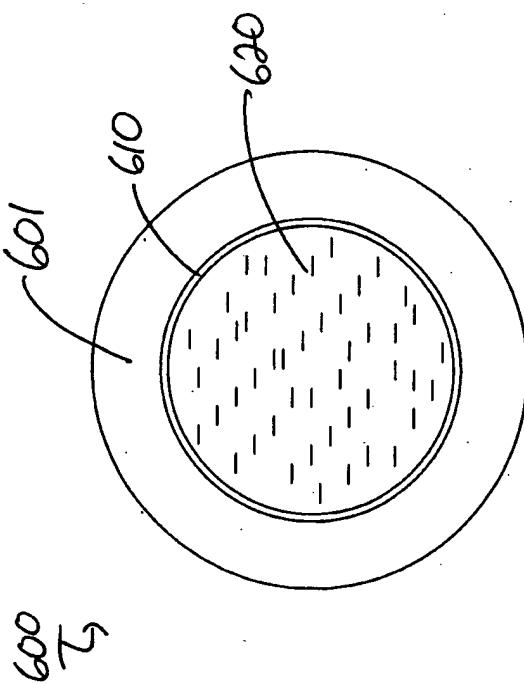


FIG. 7A

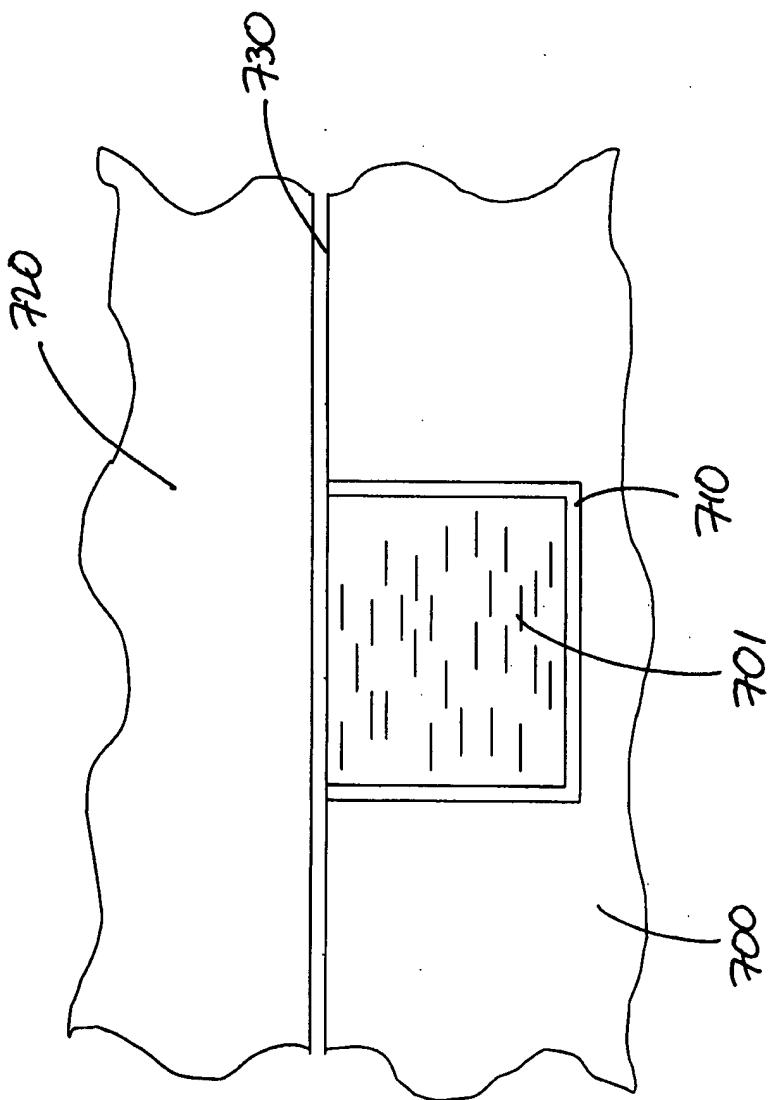


FIG. 8

FIG. 9A

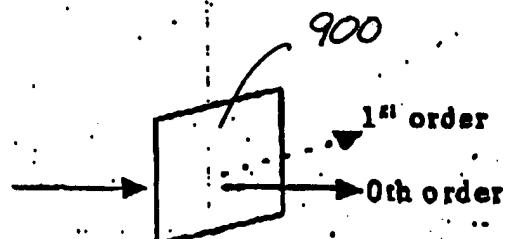


FIG. 9B

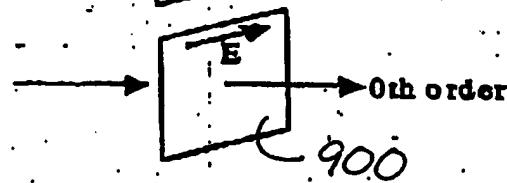
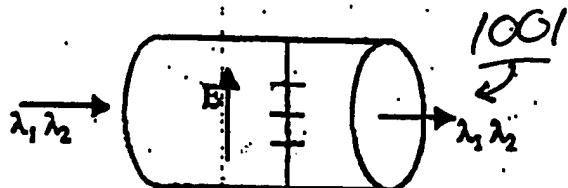


FIG. 10A



FIG. 10B



First Named Inventor: Gregory P. Crawford
Case No.: 59067US002
Title: ALIGNMENT OF LIQUID CRYSTALS

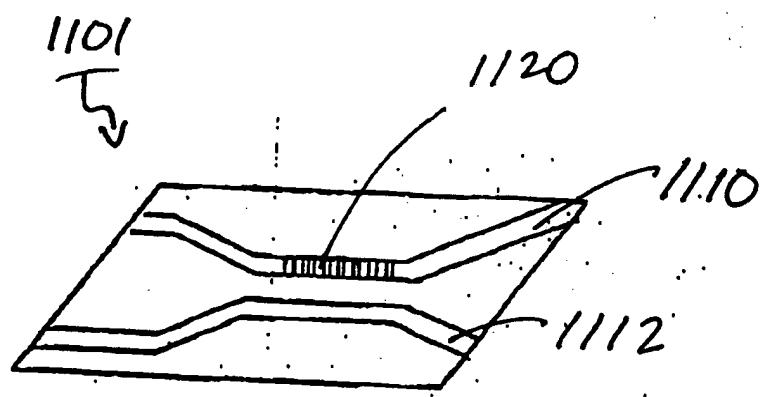


FIG. 11

FIG. 12A alignment

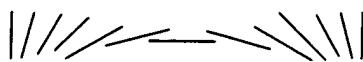


FIG. 12B amplitude

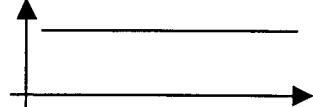


FIG. 12C polarization

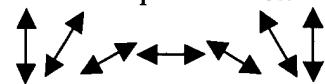


FIG. 12D exposure

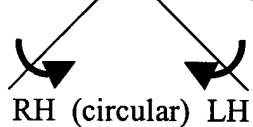


FIG. 12E Substrate 1

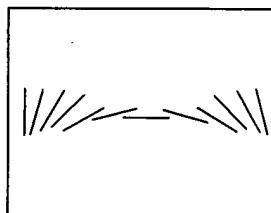


FIG. 12F Substrate 2

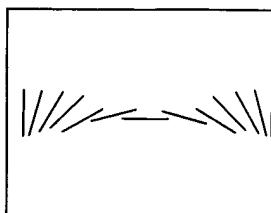


FIG. 12G

Cross-section of cell

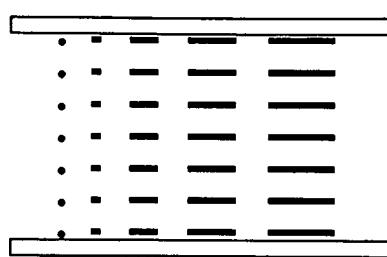


FIG. 13A. alignment

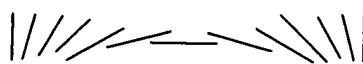


FIG. 13B amplitude

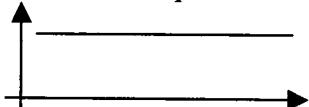


FIG. 13C polarization

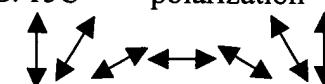


FIG. 13D exposure

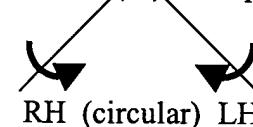


FIG. 13E Substrate 1

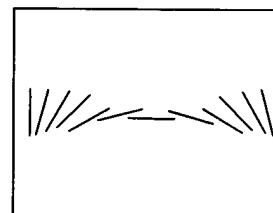


FIG. 13F Substrate 2

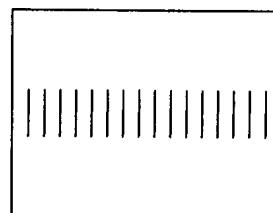
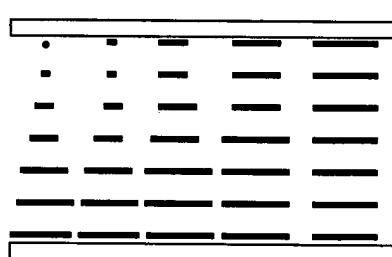


FIG. 13G

Cross-section of cell



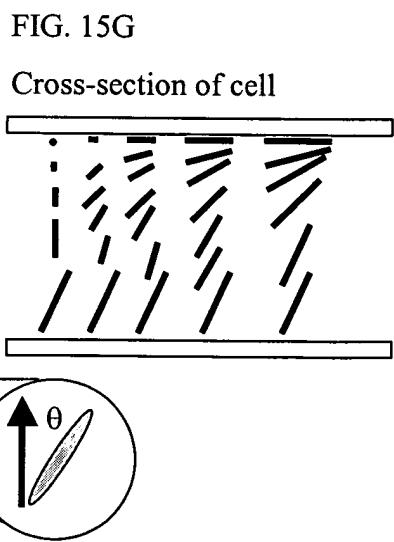
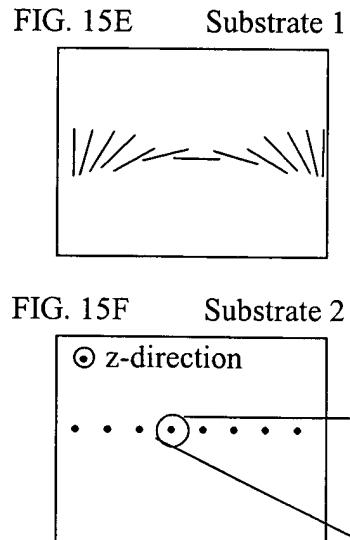
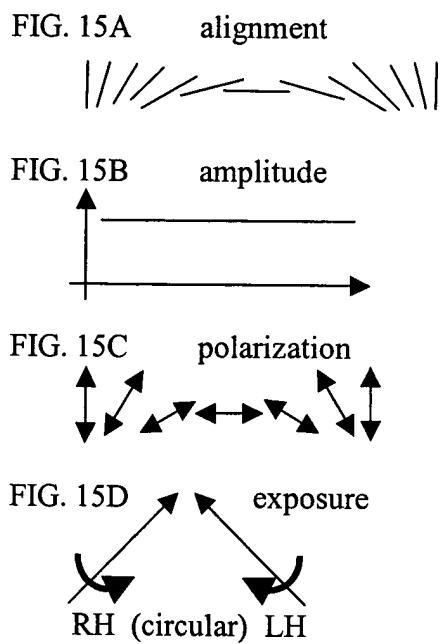
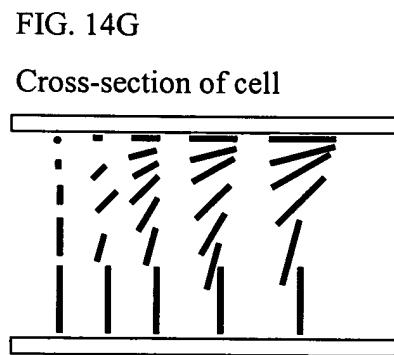
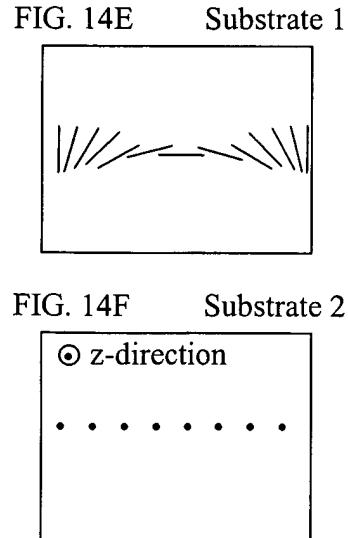
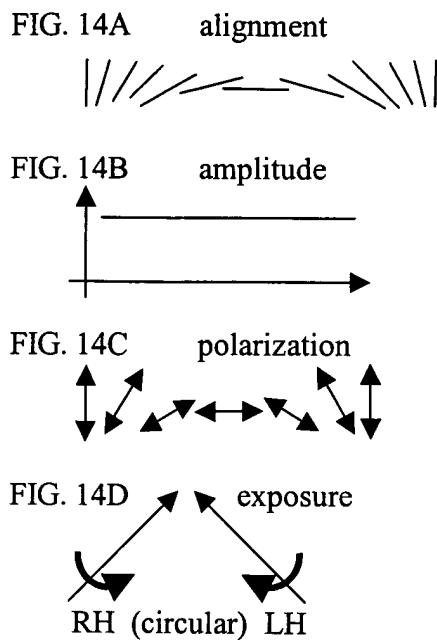
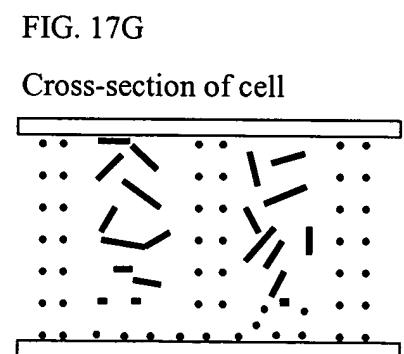
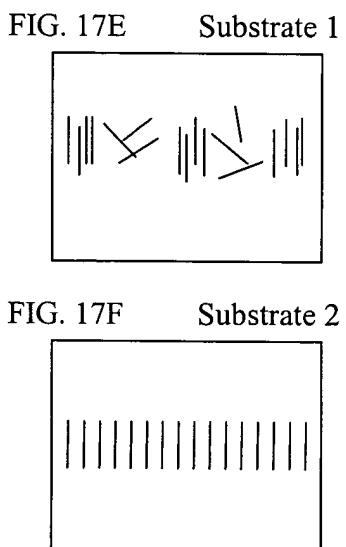
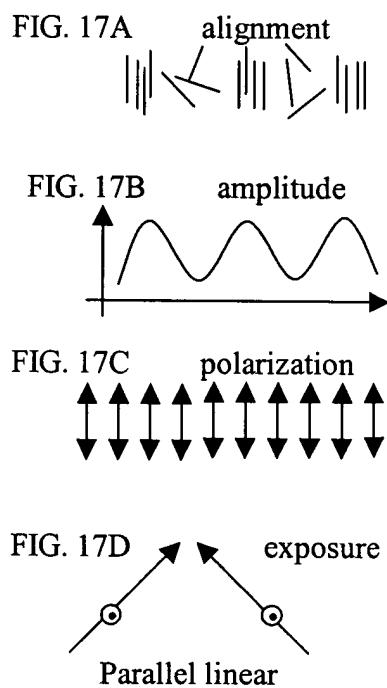
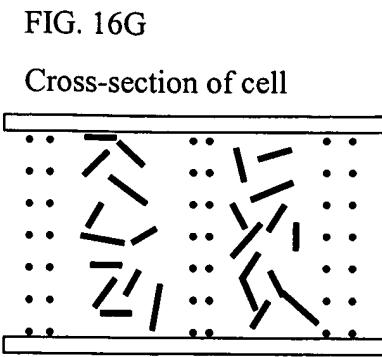
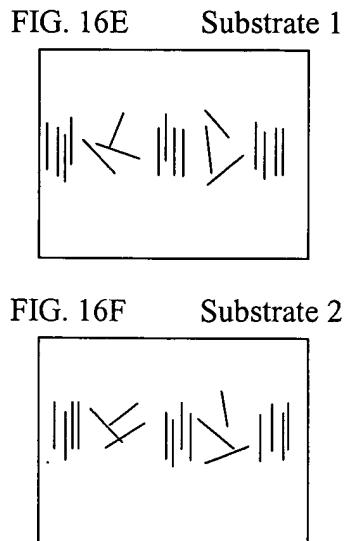
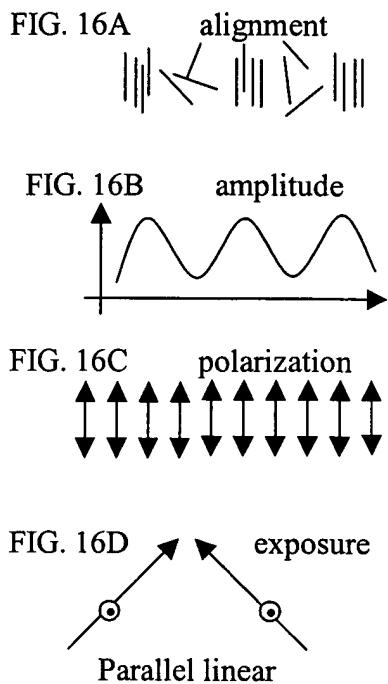


FIG. 15H



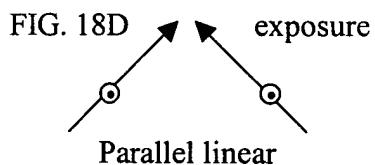
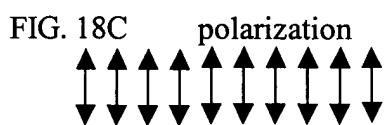
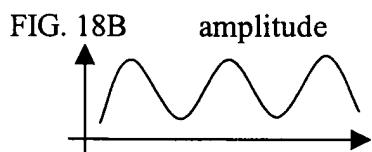
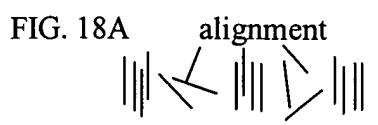


FIG. 18E Substrate 1

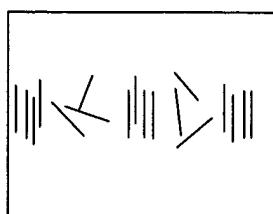


FIG. 18F Substrate 2

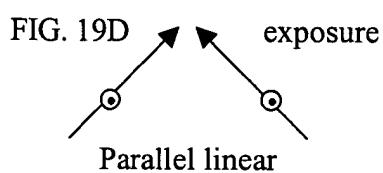
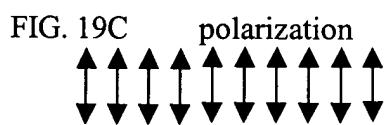
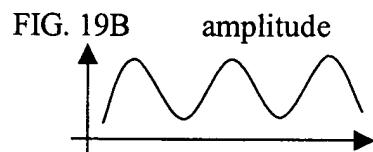
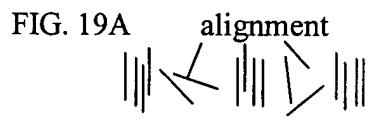
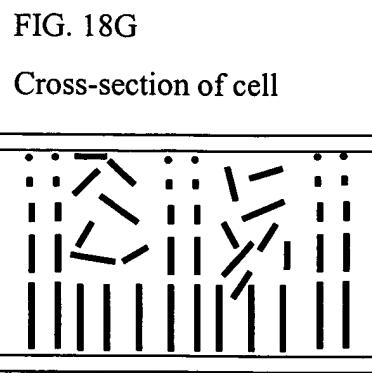
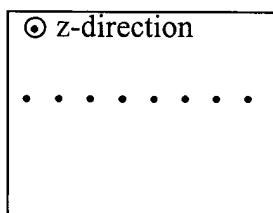


FIG. 19E Substrate 1

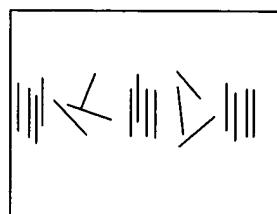


FIG. 19F Substrate 2

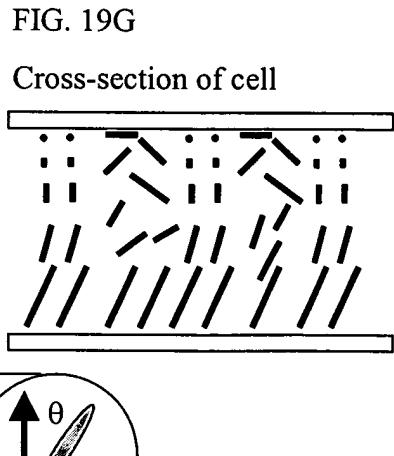
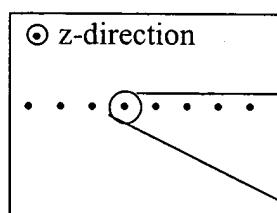


FIG. 19H

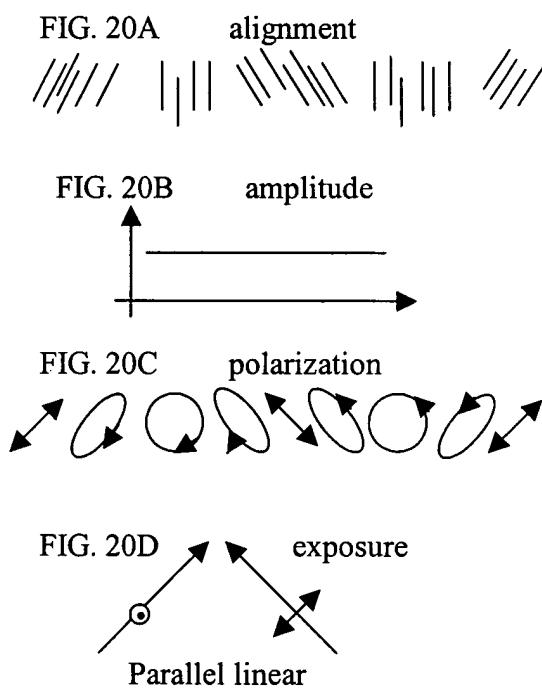


FIG. 20E Substrate 1

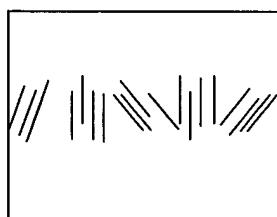


FIG. 20F Substrate 2

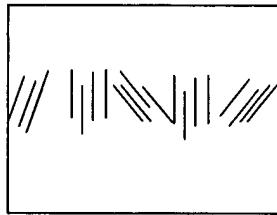
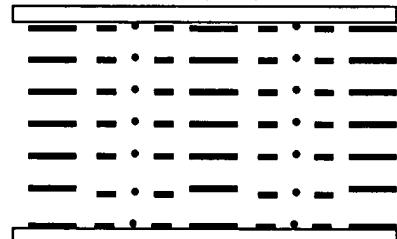


FIG. 20G

Cross-section of cell



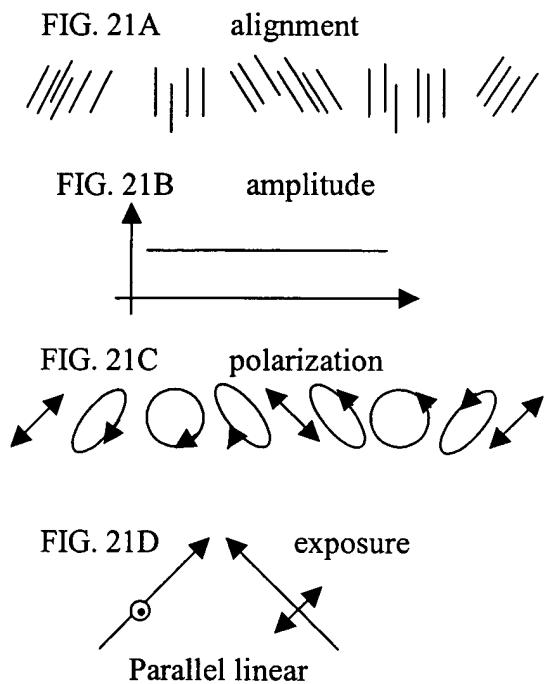


FIG. 21E Substrate 1

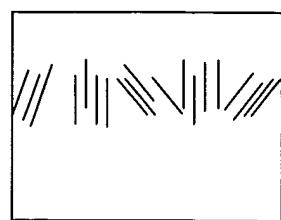


FIG. 21F Substrate 2

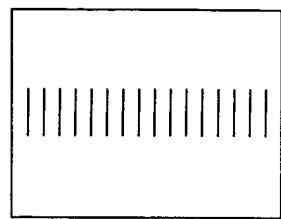


FIG. 21G

Cross-section of cell

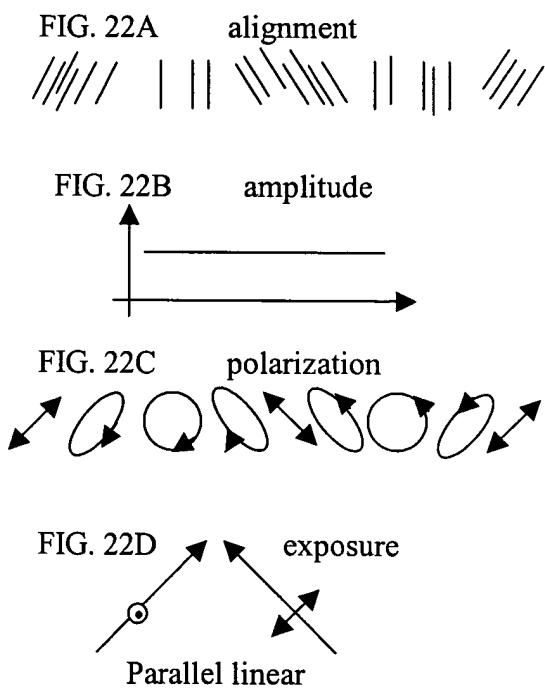
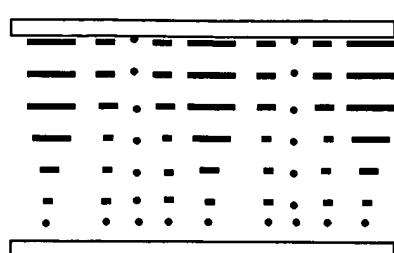


FIG. 22E Substrate 1

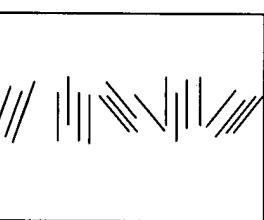


FIG. 22F Substrate 2

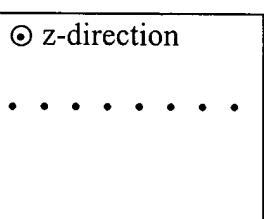
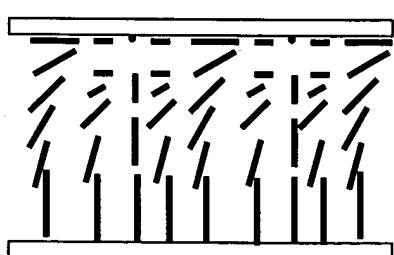


FIG. 22G

Cross-section of cell



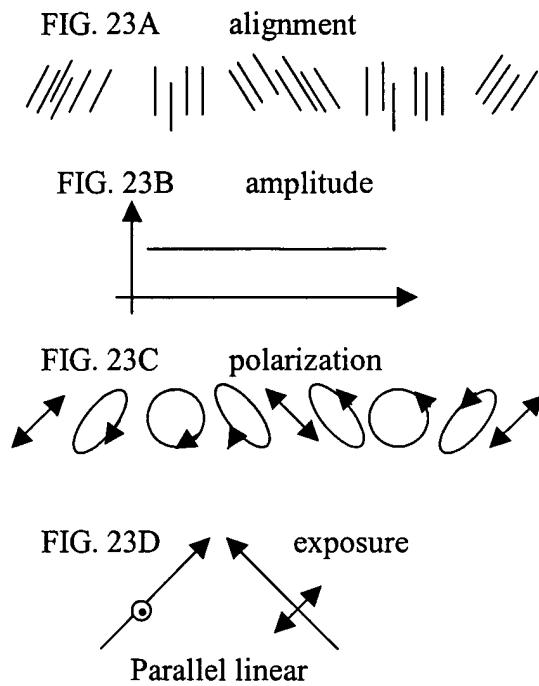


FIG. 23E Substrate 1

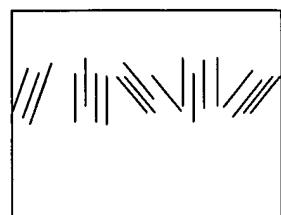


FIG. 23G
Cross-section of cell

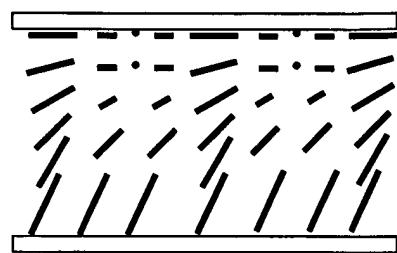


FIG. 23F Substrate 2

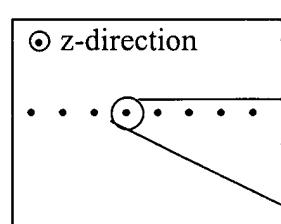


FIG. 23H

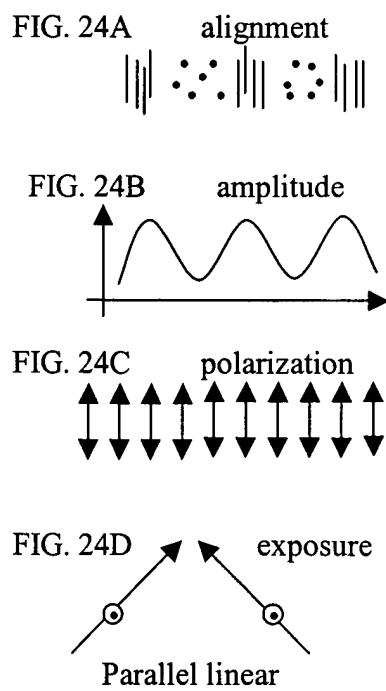


FIG. 24E Substrate 1

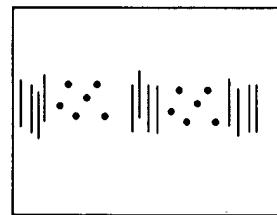


FIG. 24G

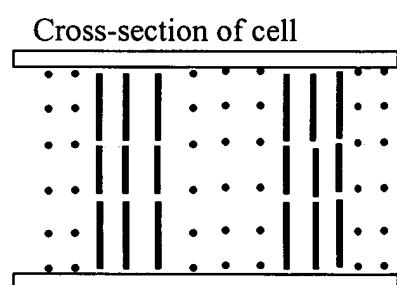
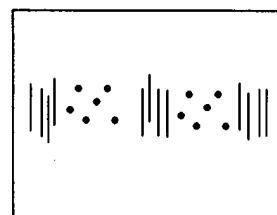
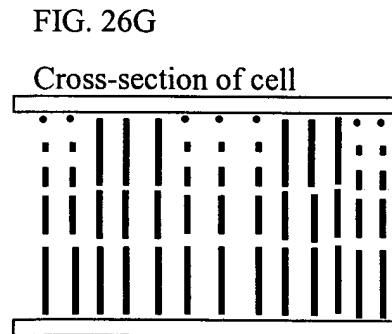
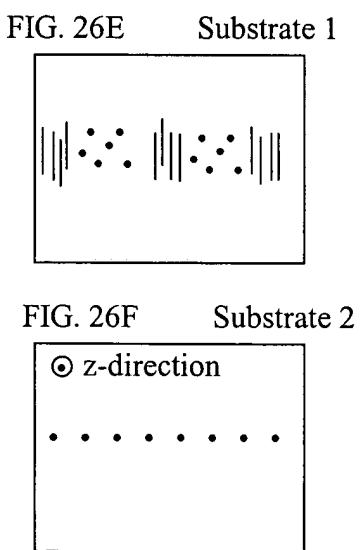
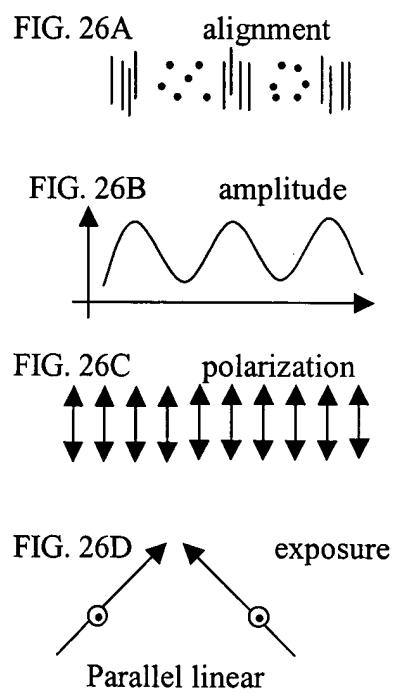
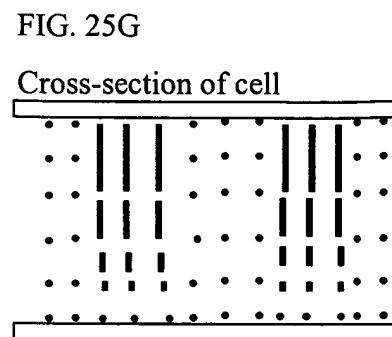
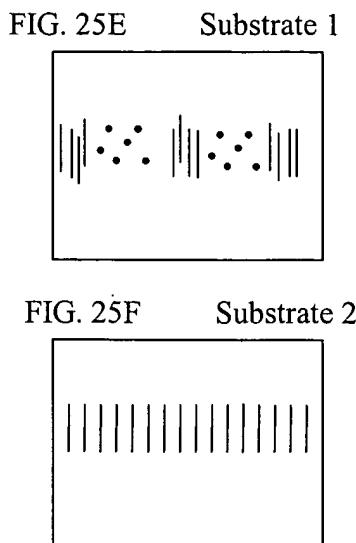
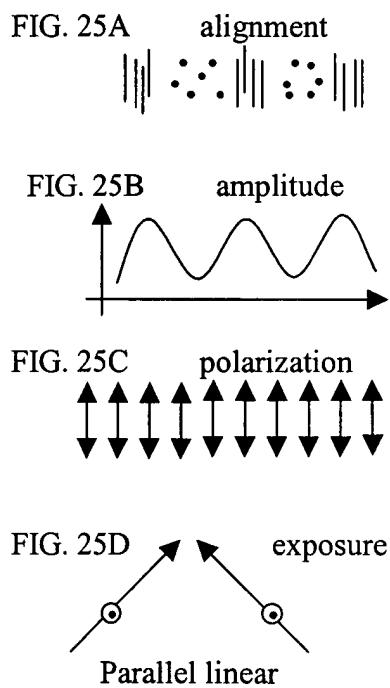


FIG. 24F Substrate 2





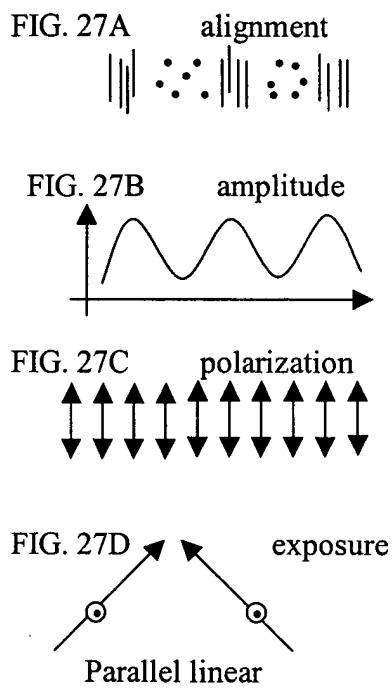


FIG. 27E Substrate 1

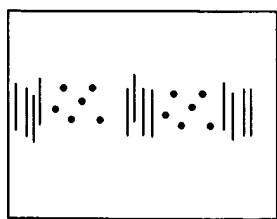


FIG. 27F Substrate 2

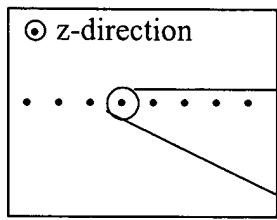


FIG. 27G

Cross-section of cell

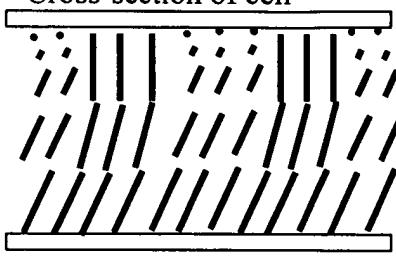


FIG. 27H

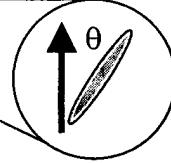


FIG. 28A alignment



FIG. 28E alignment



FIG. 28B amplitude

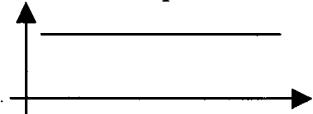


FIG. 28F amplitude

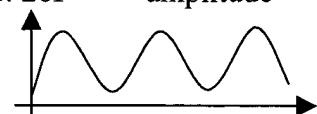


FIG. 28C polarization

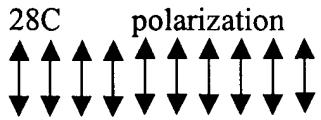
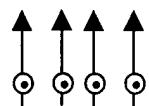


FIG. 28G polarization

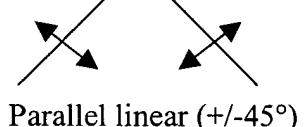


FIG. 28D exposure



Linear polarized
blanket exposure

FIG. 28H exposure



Parallel linear (+/-45°)

FIG. 28I Substrate 1

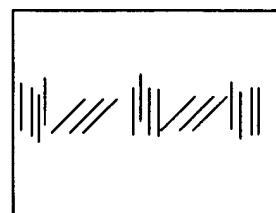


FIG. 29J Substrate 2

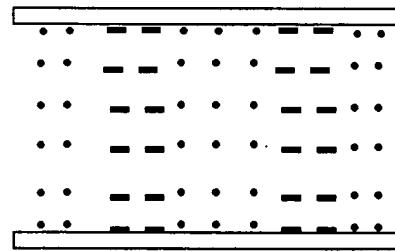
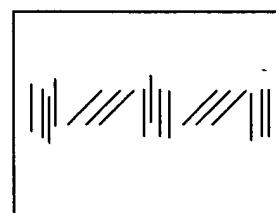


FIG. 28K

Cross-section of cell

FIG. 29A alignment
④ z-direction

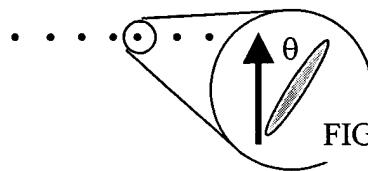


FIG. 29E alignment

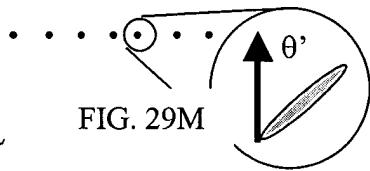


FIG. 29B amplitude

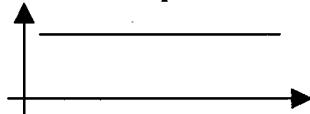


FIG. 29F amplitude

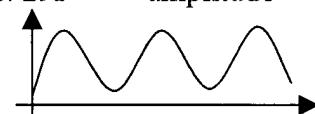


FIG. 29C polarization

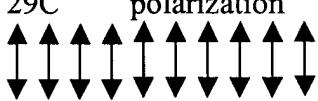


FIG. 29G polarization

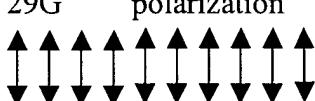
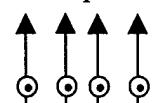


FIG. 29D exposure



Linear polarized
blanket exposure

FIG. 29H exposure

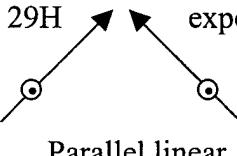


FIG. 29I Substrate 1

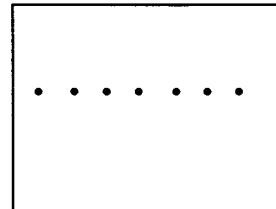


FIG. 29J Substrate 2

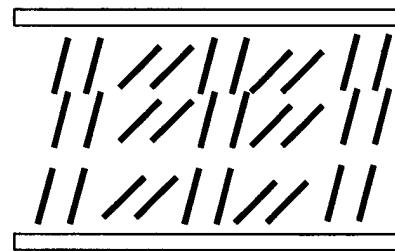
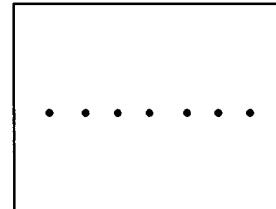


FIG. 29K

Cross-section of cell

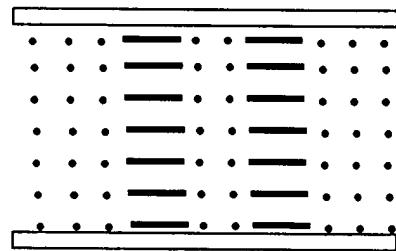
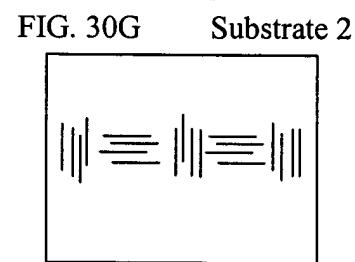
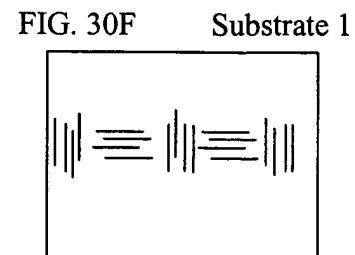
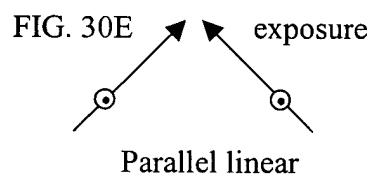
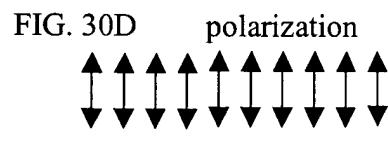
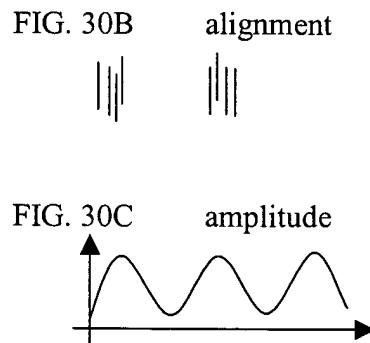
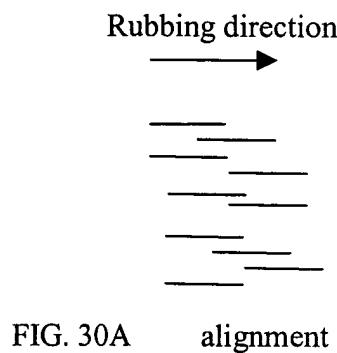


FIG. 30H
Cross-section of cell

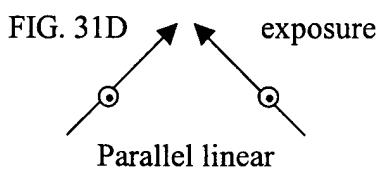
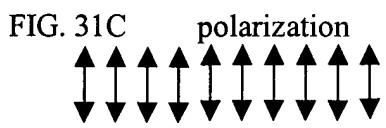
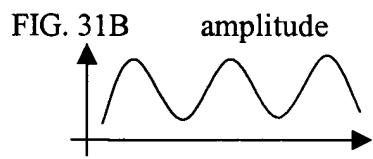
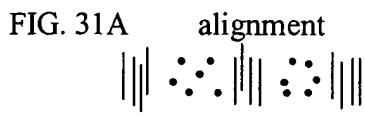


FIG. 31E Substrate 1

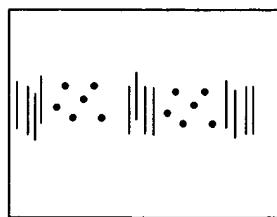


FIG. 31F Substrate 2

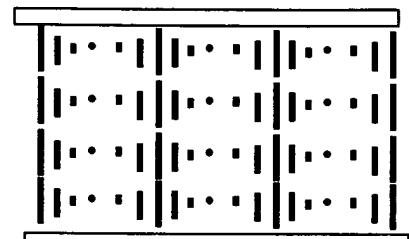
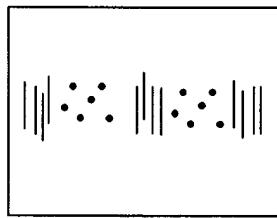


FIG. 31G
Cross-section of cell